(2) RDW was closely related with Gensini score. Patients with more severe coronary artery disease had higher level of RDW. (3) RDW was relevant to the incidence of long-term adverse cardiovascular events in ACS patients.RDW might be one of the predictors for long-term adverse cardiovascular events in patients with ACS.(4)RDW was significantly correlated with WBC, hs-CRP, NT-proBNP and LVEF. High-levels of RDW in ACS patients might be correlated with inflammatory reaction and downgrade of cardiac function level.

### GW25-e5136

### Comparison of continuous platelet count method PL-11 with VASP for monitoring the platelet aggregation function

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**Objectives:** To evaluate the clinical application value of platelet analyzer PL-11.
**Methods:** This study included 69 patients with non-ST-elevation acute coronary syndrome (NSTE-ACS) requiring selective percutaneous coronary intervention (PCI). Blood samples obtained at 6–12 hours after a 600mg loading dose of clopidogrel were assayed using continuous platelet count with PL-11 [adenosine diphosphate (ADP) as the agonist] and vasodilator stimulated phosphoprotein (VASP) assay. The results were described as maximal aggregation ratio (MAR) and platelet reactivity index (PRI) respectively. A PRI $\geq$ 50% was defined as high platelet reactivity (HPR). The platelet function of patients with HPR were detected respectively by the above two methods in 3 days and 7 days after antiplatelet drug maintenance treatment.
**Results:** There was a strong correlation between PL-MAR and VASP-PRI (Pearson r=0.77, $P<0.01$). The receiver-operator characteristic curve (ROC) analysis showed that the best cutoff point of MAR to distinguish between VASP-defined normal and HPR was 38%. The area under the curve (AUC) was 0.904 ($P<0.001$, 95%CI: 0.84-0.97). The sensitivity and specificity of PL-11 to detect HPR were 93.5%, 76.3%. There were good consistencies among the PL-11 and VASP assay in classifying patients to normal or HPR categories (after 600mg clopidogrel: Kappa=0.68, $P<0.01$; after 3 days therapy: Kappa=0.73, $P<0.01$; after 7 days therapy: Kappa=0.70, $P<0.01$).
**Conclusions:** Good correlations and consistencies among PL-11 and VASP assay suggested the ability of PL-11 to detect the platelet aggregation function. Further randomized studies are required to confirm the cut-off value of HPR detected by PL-11.

### GW25-e5175

### Point-of-care sensitive cardiac troponin I in the rapid triage of chest pain patients in emergency department

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**Objectives:** To evaluate the clinical effectiveness of point-of-care sensitive cardiac troponin I (POC-cTnI) in emergency department setting amongst acute chest pain patients with suspected NSTEMI.
**Methods:** 220 participants who suspected with NSTEMI were recruited consecutively between July 2012 and January 2013, the participants were randomized into two groups (POCT vs CLT) after having their baseline characteristics collected. In the POCT arm, patients had their POCT levels measured both at time zero of emergency attendance and 3 hours after emergency admission. In the CLT arm, patients were managed with current hospital guidelines, including a CLT-cTnT level both upon attendance and 6 hours after, while the other diagnostic and/or therapeutic managements were at the discretion of the clinician. All participants were followed for 90 days. The primary outcome measures: 1 the triage decision-making time and the duration of initial emergency stay; 2. the rate of successful home discharges within 6 hours after Emergency visit and no MACE up to 90 days. The secondary outcome measures included the duration of cardiology department/CCU stay, the subsequent outpatient's visits, emergency revisits, hospital readmissions and major adverse cardiac events over the 90 days follow-up.
**Results:** 216 participants were successfully followed up. 1 and 3 patients lost to follow-up in POCT arm and CTL arm respectively. The POCT arm was associated with less time on mean time of triage decision-making (246min vs 178.5min; P<0.001), reduced mean length of initial emergency stay (7.2h vs 10.1h; P<0.001), and increased rate of successful discharge at initial attendances (37/109 (33.9%) vs 9/107 (8.4%) ; OR 7.153,95%CI 3.051 to 16.774; P<0.001). Between the two arms, there was no difference in the mean duration of cardiovascular wards stay (including cardiology department and CCU) (3.1 vs 3.0; P=0.972). Nevertheless, the POCT arm has more mean inpatients days in CCU (2.0 vs 0.8,P =0.045) and less mean inpatients days in cardiology department (1.1 vs 2.3,P=0.038). At 90 days follow-up, the POCT arms had a lower rate of emergency department re-attendance (11 (10.6%) vs 22 (21.2%) ; P=0.037) and also a lower rate of hospitalization for cardio-vascular reasons (12 (11.0%) vs 24 (22.4%) ; OR 0.42,95%CI 0.200 to 0.920; P=0.030). Meanwhile, there is no difference in any adverse event of MACE, including death, non-fatal myocardial infarction, or hospitalization for cardio-vascular reasons without myocardial infarction (44 (40.4%) vs 47 (43.9%); OR 0.850, 95%CI 0.485 to 1.490; P=0.571).
**Conclusions:** POC-cTnI assessment could rapidly triage chest pain patients with suspected AMI. This assay could especially increase the rate of successful discharge amongst low-risk patients, while not increasing the occurrence of MACE at 90 days follow-up.

### GW25-e1483

### Combining fragmented QRS and TIMI score for predicting in-hospital short-term prognosis after acute myocardial infraction

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**Objectives:** To investigate the joint effect of fQRS and TIMI risk score on predicting short-term prognostic in patients with acute myocardial infarction.
**Methods:** 300 patients with AMI were conducted with retrospective analysis on patients' clinical data in order to assess the relationship between fQRS with the risk score and prognosis.
**Results:** (1) The fQRS with TIMI risk score would provide more sensitive and specific prediction of prognosis for AMI patients. In patients of positive fQRS, whose TIMI score $\geq$ 4 but without PCI intervention had elevated LVSD and mortality rates (p= 0.046, 0.009). In the group with TIMI score $<$ 4 and without PCI intervention treatment, these patients showed 3x and 3.5x the rates of malignant cardiac arrhythmia and mortality, respectively, when compared to the intervention group (p-values as 0.012 and 0.004).
**Conclusions:** (1) fQRS with TIMI risk score could increase the sensitivity and the specificity for prognosis evaluating for AMI patients. Patients of AMI with positive fQRS, who underwent early revascularization, could lower the incidence rate of cardiovascular event. And, the presence of fQRS could be used as an indication of early intervention treatment for patients with TIMI score $<$ 4.

### GW25-e2312

### A preliminary study of serum CA125 levels, mechanism and clinical significance in patients with acute myocardial infarction

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**Objectives:** 1 To explore the changes of serum CA125, mechanism and clinical significance in patients after AMI, and according to its fluctuation we shall assess the condition and guide the treatment of HF after AMI; 2. It's better to comprehend the pathophysiology of the HF after AMI from fluid overload of the systemic and pulmonary circulation.
**Methods:** 88 cases with AMI was study group, and 30 PSVT cases with normal cardiac function was control.AMI patients did physical examination to distinguish killip classifications immediately at admission respectively, Venous blood samples were taken at admission and after 48 hours from the first taken to check the serum CA125.All patients measured the hs-CRP, BNP and echocardiography at least once. There were 10 patients in critical condition and lined the deep venous catheter to monitor CVP to guide therapy in AMI group. We define $\Delta$CA125 as which $CA125_2$ divided by $CA125_1$at early AMI (myocardial infarction in 24 hours to complete the first CA125 check).
**Results:** 1.CA125, $\Delta$CA125 and BNP are closely related to killip classifications; 2. CA125 after 48 hours with EF less than 50% and killip classification more than II, III, ivof the AUC respectively was 0.898, 0.877, 0.898 , 0.797, its moderate diagnosis cut-off point were more than 8.92, 7.99, 8.92, 15.0 U / mL; 3. $\Delta$CA125 with EF less than 50% and killip classification more than II, III, ivof the AUC was 0.818, 0.930, 0.958, 0.900, its better diagnostic cut-off point is more than 2.75, 3.06 , 7.71, 8.85 in turn; 5. Accuracy that $\Delta$CA125 identify killip classifications is better than the other; 6. CA125 is relation to hs-CRP, BNP, EF (R=0.435, 0.660, -0.677, $P<0.001$). $\Delta$CA125 is relation to hs-CRP, BNP, EF (R=0.524, 0.559, -0.623, $P<0.001$).
**Conclusions:** 1 CA125 and $\Delta$CA125 depend on cardiac function and the time of post-AMI; 2. when CA125 more than 8.92, 7.99, 8.92, 15.0 U / mL, it suggest that EF are less than 50% and killip classifications are more thanII, III, iv in turn; 3. when $\Delta$CA125 more than 2.75 , 3.06, 7.71, 8.85, it suggest that patients EF less than 50% and killip classifications are more thanII, III, iv in turn; 4 The elevated serum CA125 values may be related to fluid overload and inflammatory.6. Necrosis myocardial cells don't elevate serum CA125; 7.The increased CVP and PCWP may be related to the serum CA125; 8. Accuracy that $\Delta$CA125 values identify different killip classifications is better than the other.

### GW25-e4282

### Effect of Rosuvastatin on Atherosclerosis Plaque Biomechanics Patients with Metabolic Syndrome Using Multiple Tracking Techniques

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**Objectives:** To assess the changes of the velocity, strain and strain rate on carotid atherosclerosis plaque biomechanics before and after treatment of rosuvastatin for 6 months.
**Methods:** 96 patients with metabolic syndrome according to the results of according to the diagnostic standard of IDF underwent the high frequency ultrasound scanning two carotid arteries in this study. Detected carotid artery intima media thickness.